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Five-Year Review Report For Pinette's Salvage Yard Superfund Site Aroostook County, Maine

September 2005

Prepared by

Region I United States Environmental Protection Agency Boston, Massachusetts

Approved by:

Date:

09/27/05

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List of Acronyms

ARARs Applicable or Relevant and Appropriate Requirements

ATSDR Agency for Toxic Substance and Disease Registry

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CFR Code of Federal Regulations
CLP Contract Laboratory Program

DEP Department of Environmental Protection

DFND Direct Final Notice of Deletion
DRI Deletion Remedial Investigation

ECD Electron Capture Detector

EPA U.S. Environmental Protection Agency ESD Explanation of Significant Differences

FS Feasibility Study

GC Gas Chromatography

HRGC High Resolution Gas Chromatography
HRMS High Resolution Mass Spectroscopy

IRA Immediate Removal Action

LRMS Low Resolution Mass Spectroscopy

MCLs Maximum Contaminant Levels
MCLGs Maximum Contaminant Level Goals
MEG Maximum Exposure Guideline
MOM Management of Migration

NCP National Oil and Hazardous Substances Pollution Contingency Plan

ng/L Nanograms per liter
NOID Notice of Intent to Delete
NPL National Priorities List

O&M Operations and Maintenance

OUs Operable Units

PCBs Polychlorinated Biphenyls PHE Public Health Evaluation

ppm Parts per million

PRPs Potentially Responsible Parties

RfC	Reference Concentration
RfDo	Oral Reference Dose
RI	Remedial Investigation
ROD	Record of Decision
an.	
SRI	Supplemental Remedial Investigation
TtEC	Tetra Tech EC, Inc.
ribe	Total Total Bo, ale.
ug/L	Micrograms per liter
VOCs	Volatile Organic Compounds

Executive Summary

This second Five-Year Review has found that the Pinette's Salvage Yard Superfund Site (the Site) in Washburn, Maine (see Attachments 1, 2, and 3 for location) remains in compliance with the remedy for the Site as presented in the Record of Decision (ROD) and the Explanation of Significant Differences (ESD). The ROD for the Pinette's Site issued in 1989 addressed both the Source Control and Management of Migration (MOM) remedies. The Source Control remedy for the Site was completed in 1994. Subsequently, an ESD amending the original ROD remedy for groundwater (i.e. the MOM component) at the Site was issued in 1996. The first Five-Year Review for the Site, performed in 2000, determined that the Site was in compliance with the requirements of the ROD and ESD. Since the Source Control remedy had been completed, the first Five-Year Review primarily focused on the groundwater (MOM) remedy. In September 2002, the Site was delisted from the National Priorities List (NPL). The results of this second Five-Year Review indicate that the remedy continues to function appropriately and is protective of human health and the environment

The primary component of the groundwater remedy at the Pinette's Site has been the establishment of institutional controls restricting site and aquifer use. Specifically, in 2002, the Maine Department of Environmental Protection (Maine DEP) filed a Declaration of Restrictive Covenant that limited land use within an area 260 feet in diameter, around well cluster #5 at the Pinette's Site. The Restrictive Covenant applies to both groundwater and soils that exceed ROD established clean up levels within the restricted zone. These restrictions were imposed in response to the continuing detection of polychlorinated biphenyls (PCBs) at well DMW-5 at concentrations that exceed the cleanup level established by the ROD. The Restrictive Covenant prohibited groundwater use for domestic consumption within the 260 foot diameter around well cluster #5.

Groundwater sampling conducted in September 2004 indicated that the only site contaminant remaining above the ROD cleanup goals was PCBs. PCBs were detected in four monitoring wells (SMW-5A, DMW-5, BMW-5 and SMW-7A). However, only the concentration reported for well DMW-5 exceeded the ROD cleanup goal of 0.5 ug/L. Overall, groundwater PCBs continue to be predominantly localized in the vicinity of well cluster #5. Groundwater PCB concentrations are generally similar to the levels reported in the previous 1999 sampling rounds. Hydrogeology data indicates that groundwater at the Site does not migrate toward the domestic wells that have been identified on properties near to the Site.

The September 2004 site groundwater sampling event found the monitoring wells to be in generally acceptable condition. This was confirmed during the 2005 site inspection. During both the 2004 sampling event and 2005 site inspection, it was noted that the amount and configuration of some of the material (i.e. abandoned vehicles, miscellaneous parts, etc.) was changed from a review of historical photographs. However, despite these changes, the site inspection conducted by the U.S. Environmental Protection Agency (EPA) in 2005 indicated that the property owner appears to be abiding by the Restrictive Covenant established in 2002. Nonetheless, to ensure continued future protectiveness, it is recommended that site inspections be continued at a frequency of approximately once every three years (one additional site visit between Five-Year Reviews).

Five-Year Review Summary Form

Site name (from WasteLAN): Pinette's Salvage Yard Superfund Site							
EPA ID (from WasteLAN): MED980732291							
Region: I	State: ME	City/County: Wa	ashbum, Aroostook				
NPL status:	Final XI Deleted	☐ Other (specify)					
Remedial status	(choose all that a	pply): 🗆 Under	Construction ☐ Operating ☒ Complete				
Multiple OUs?*	☐ YES 図 NO	Construction	completion date: 11/93				
Has site been pu	t into reuse? 🛘	YES X NO Par	tial use				
Lead agency: 🗵	EPA State	☐ Tribe ☐ Other	Federal Agency				
Author name: A	Jmerinda Silva						
Author title: EP	A RPM	·	Author affiliation: EPA Region I				
Review period:**	4/1/05 to 9/30/05						
Date(s) of site in:	spection: 8/3/05						
Type of review:			-SARA □ NPL-Removal only				
			Action Site				
Paylow number	Regional Discretion						
Review number: ☐ 1 (first) ☒ 2 (second) ☐ 3 (third) ☐ Other (specify)							
Triggering action:							
☐ Actual RA On-site Construction at OU #1 ☐ Actual RA Start at OU#							
☐ Construction Completion ☑ Previous Five-Year Review Report							
☐ Other (specify)	A-4- /8 184						
	Triggering action date (from WasteLAN): 9/30/00						
Due date (five ye	Due date (five years after triggering action date): 9/30/05						

^{* [}OUs refer to operable unit.]

^{** [}Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form, cont'd

issues:

The results of this second Five-Year Review indicate that the remedy continues to be protective and there are relatively few issues associated with the Pinette's Site. The principal concern is that the key institutional controls for the Site (Restrictive Covenant) limiting land and aquifer use in the vicinity of the residual PCB contamination in groundwater be maintained and adhered to. Recent site visits have indicated a limited amount of expansion in the area used for auto salvage and storage operations at the Site. This expansion has included some limited ground clearing.

The principal concern associated with expansion of auto salvage operations is the possibility of increased risk of spillage of petroleum products at the Site. This could result in increased levels of benzene and/or lead in site groundwaters above the ROD cleanup levels. In addition, any significant spillage of petroleum products might tend to solubilize residual PCBs in site soils and enhance groundwater PCB migration, particularly, downgradient of well cluster #5.

A secondary and relatively minor issue at the Site relates to the ongoing groundwater sampling and analysis program. The 1999 and 2004 sampling programs involved somewhat limited numbers of monitoring wells and differing PCB analytical methods. These two factors might adversely affect the ability to effectively evaluate longer term groundwater trend data particularly for low level PCBs at the Site.

Recommendations and Follow-Up Actions:

In order to best insure adherence to the Restrictive Covenant for the Site, a slight increase in the frequency of site inspections is recommended. Specifically, it is recommended that a field inspection of the Site be performed approximately once every three years (one additional site visit between Five-Year Reviews). The purpose of this frequency of inspection would be to confirm that no land use changes occur within the 260 foot diameter around well cluster #5. During these site visits, the integrity of the monitoring well array should be noted. In addition, the Site should also be visually checked for any obvious evidence of significant petroleum spills.

With respect to the sampling and analysis program, it is recommended that a more systematic sampling approach be considered that would consistently monitor selected key wells and also might involve periodically varying sampling in a few wells to diversity overall site coverage. It is also suggested that consistent use of low resolution mass spectroscopy (LRMS), as was used in the September 2004 sampling round, could potentially assist longer term data analysis.

Protectiveness Statement(s):

The groundwater remedy for the Pinette's Site is functioning effectively and is protective of human health and the environment. The implementation of institutional controls involving the establishment of a Restrictive Covenant for certain portions of the Site has effectively prevented ingestion of PCB contaminated groundwater from the Site.

Groundwater monitoring data indicates that the residual levels of only one site contaminant (PCBs) remain above the ROD groundwater cleanup level. In addition, monitoring data further indicates that PCBs exceed the ROD groundwater cleanup level in only one well, DMW-5 near the center of the Site. This localized contamination lies well within the site area controlled by the Restrictive Covenant.

Long -Term Protectiveness:

The long term protectiveness of the remedial action at the Pinette's Site will continue to be verified through ongoing site inspections and continued groundwater monitoring, as appropriate. These activities will effectively monitor the residual groundwater contamination, as well as ensuring that the Restrictive Covenant for the Site is adhered to.

Other Comments:

There are no additional comments regarding the Pinette's Site, based upon the results of this Five-Year Review.

Pinette's Salvage Yard Superfund Site Washburn, ME Second Five-Year Review Report

I. Introduction

EPA Region I has conducted the second Five-Year Review for the Pinette's Salvage Yard Superfund Site (Pinette's Site) in the town of Washburn in Aroostook County, Maine. This review was conducted from April 2005 to September 2005. This Five-Year Review considers both the Source Control and Management of Migration (MOM) components of the remedy. However, the primary focus of this review is on the MOM components. This report documents the results of the review.

The purpose of a Five-Year Review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of a review are documented in a Five-Year Review Report. In addition, Five-Year Review Reports identify deficiencies found during the review, if any, and identify recommendations to address them.

This review is required by statute. EPA must implement Five-Year Reviews consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). CERCLA §121(c), as amended, states:

"If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented."

The NCP, in Part 300.430(f)(4)(ii) of the Code of Federal Regulations (CFR), states:

"If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action."

This is the second Five-Year Review for the Pinette's Salvage Yard Superfund Site. This review has considered both the Source Control and MOM remedy components although it has focused on the MOM components. The triggering action for this review was the completion of the first Five-Year Review for the Pinette's Site in September 2000. Due to the fact that hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unrestricted use and unlimited exposure, the Five-Year Review is required.

In conducting this Five-Year Review, relevant existing documents related to project objectives, cleanup goals, and implementation of the remedial actions at the Site have been examined. The primary documents that have been reviewed include:

- EPA Five-Year Review Guidance Document (June 2001)
- First Five-Year Review Report (September 2000)
- Record of Decision (1989)
- Explanation of Significant Differences (June 1996)
- Groundwater Data from EPA Region I Sampling (September 2004)
- Groundwater Data from Maine Department of Environmental Protection (DEP) (June 1999, September 1999)
- Summary of Environmental Data and Evaluation Report (June 1996)
- Memorandum from Richard Willey, EPA Hydrogeologist, to Almerinda Silva, Remedial Project Manager, re: Current Groundwater Quality Concerns at the Pinette's Salvage Yard Superfund Site (March 13, 2000)
- Final Remedial Action Report for Groundwater (July 2002)
- Direct Final Notice of Deletion (July 2002)
- Declaration of Restrictive Convenant (August 2002)

A comprehensive list of all of the documents that have been reviewed during preparation of this report is presented in Attachment 4.

This Five-Year Review has been prepared in accordance with the recent EPA guidance document: Comprehensive Five-Year Review Guidance (EPA, June 2001). The report reflects the fact that the Pinette's Site has been delisted from the NPL.

II. Site Chronology

Table 1. Chronology of Significant Site Events

Date	Event		
April 1980	Initial discovery of the problem by Maine DEP		
December 1982	NPL listing by EPA		
October 1983	Removal Action initiated by EPA Region I		
1985	Deletion Remedial Investigation initiated		
November 1987	Phase I Supplemental Remedial Investigation complete		
November 1988 Phase II Supplemental Remedial Investigation complete			
March 1989 Remedial Investigation and Feasibility Study complete			
May 1989	ROD signature		
June 1993	ROD Amendment for Source Control		
November 1993	Completion of the Source Control Remedial Action work		
June 1996	Explanation of Significant Differences for Groundwater promulgated		
September 2000	First Five-Year Review report		
September 2002	Site deletion from NPL		

III. Background

Physical Characteristics

The Pinette's Salvage Yard Superfund Site is located on Gardner Creek Road (a.k.a. Wade Road) approximately one mile southwest of the town of Washburn, Aroostook County, Maine, in the northeastern corner of the state (see Attachments 1, 2 and 3). The town of Washburn has an estimated population of approximately 1,600 residents, and consists of various family-owned and operated stores, an elementary school and high school, Town Hall and medical center.

Land and Resource Use

A portion of the Site has been utilized as a vehicle repair and salvage yard. Damaged vehicles have been stored and/or dismantled, from which recovered parts were sold. This portion of the Site is situated within the parcel of land, currently owned by Roger J. Pinette, which consists of approximately 9.45 acres. Land use within a one mile radius of the Site includes residential, agricultural, and forest and wetland. The area immediately surrounding the Site is primarily farmland. Since site delisting in September 2002, Roger Pinette has continued to operate an auto salvage business.

History of Contamination

In June 1979, three electrical transformers from Loring Air Force Base located near Limestone, Maine, were removed from the base under a written agreement with a private electrical contractor. Allegedly, the transformers were brought to Pinette's Site where they apparently ruptured while being removed from the delivery vehicle. Approximately 900 to 1,000 gallons of dielectric fluid containing polychlorinated biphenyls (PCBs) spilled directly onto the ground.

In April 1980, the Maine DEP determined that the Site was contaminated with PCBs and associated volatile organic contaminants (VOCs). Additional sampling by the Maine DEP in August 1981 and the EPA in May 1982 confirmed the presence of PCB contamination at the Site. In December 1982, the Site was placed on the National Priorities List (NPL).

Initial Response

On October 4, 1983, EPA Region I authorized an Immediate Removal Action (IRA) for the Pinette's Site. Approximately 1,050 tons (800 cu.yds.) of PCB-contaminated soil and assorted debris were removed for disposal during the period from October 4 to November 4, 1983. The IRA was the first effort performed to excavate those soils grossly contaminated by PCBs (i.e., soils containing 50 parts per million (50 ppm) or greater of PCBs, as determined by on-site analysis). Those soils that were excavated were then transported to the Model City, New York secure hazardous waste landfill facility.

In 1985, a Deletion Remedial Investigation (DRI) was initiated at the Pinette's Site to identify the extent of remaining PCB contamination and to determine whether this remaining contamination was reduced sufficiently to warrant the deletion of the Site from the NPL. This investigation resulted in the determination by the EPA, in consultation with the Maine DEP, that the Site was not suitable for deletion from the NPL. The results of the DRI were released to the public in October 1987. The DRI revealed additional contamination and thus triggered a need for additional studies, namely Phase I and Phase II field investigations.

Based on the levels of residual PCB contamination discovered during the DRI, the EPA, in consultation with the Maine DEP, determined that a Supplemental Remedial Investigation (SRI) was warranted at the Pinette's Site. The SRI was performed using a two-phased approach. Phase I and Phase II field investigations were conducted to address any outstanding data requirements and objectives, so that the data would be of sufficient quality and quantity to support the preparation of a Feasibility Study (FS). The Phase I field investigations were performed from September 1987 through November 1987. Phase II field activities were completed in November 1988. The Final SRI and Public Health Evaluation Report (Ebasco, 1989a), and the Draft Final Feasibility Study Report (Ebasco, 1989b) were distributed for public comment in March 1989.

The results of both Phase I and Phase II of the SRI field work revealed the presence of a wide range of PCB concentrations in the surface (0-6 inch) and subsurface (6 inch to 6 foot) soils. The majority of the soil PCBs were located in a generally elliptical area measuring approximately 150 feet by 80 feet. Surface soil PCB

concentrations were found to range up to 92 ppm, while subsurface concentrations were found to range up to 11,000 ppm at a depth of between 6 inches and two feet.

During the SRI, a total of 19 monitoring wells were installed throughout the Site, at nine separate locations. Detectable concentrations of PCBs, benzene, chlorobenzene, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, and chloromethane were identified within both the shallow and deep till aquifers at the Site (Ebasco, 1989a). These detectable concentrations of organic chemicals were found to be localized within and slightly downgradient of the spill area (in the vicinity of monitoring well cluster #5 as depicted in Attachment 3), but north of Gardner Creek Road. No detectable concentrations of PCBs were identified in filtered samples obtained at the Site, although PCBs were detected in unfiltered samples. The distribution of PCBs detected in the groundwater was limited only to the approximate spill area.

Basis for Taking Action

In conjunction with the SRI, a Public Health Evaluation (PHE) was performed to estimate the probability and magnitude of potential adverse human health risks and environmental impacts from exposure to those contaminants associated with the Site. A suite of 26 contaminants of concern identified at the Site during the SRI were selected for evaluation in the PHE. Exposure evaluations in the PHE reflected the fact that the Site was located in an area of both residential and agricultural use. The PHE also emphasized the fact that in the immediate site area, potable groundwater is obtained through private wells.

Table 2 presents the contaminants of potential concern that were identified in the PHE for groundwater at the Pinette's Site:

Table 2. Contaminants of Potential Concern in Groundwater

PCB Aroclor -1260	Benzene	
Chlorobenzene	Toluene	
1,2-Dichlorobenzene	Chloromethane	
1,3-Dichlorobenzene	Chloroethane	
1,4-Trichlorobenzene	2-Butanone	•
Lead		

Results of the PHE evaluation indicated that the greatest site risks were associated with the following groundwater exposure pathways:

- Ingestion of groundwater from the shallow aquifer (maximum upper bound excess cancer risk estimate -5x10⁻³)
- Ingestion of groundwater from the deep aquifer (maximum upper bound excess cancer risk estimate 7x10⁻²)

Ingestion of groundwater from the bedrock aquifer (maximum upper bound cancer risk estimate - 2x10⁻³)

In the shallow, deep, and bedrock aquifers PCBs were identified as the contaminants responsible for the majority of the estimated risks. Hazard index estimates for groundwater ingestion ranged from $1x10^{-1}$ to $1x10^{-2}$. Risks for direct contact with site soils were generally lower than those estimated for site groundwater.

IV. Remedial Actions

Remedy Selection

On May 30, 1989, the EPA signed a ROD for the Pinette's Salvage Yard Superfund Site. In support of development of the ROD, a number of potential exposure pathways were analyzed for risk and threats to public health and the environment in the Public Health Evaluation (Ebasco, 1989a) for the Pinette's Site. As a result of these assessments, remedial response objectives were developed to mitigate existing and future threats to public health and the environment. These response objectives were:

- provide adequate protectiveness to human health against risks associated with direct contact or incidental
 ingestion of contaminants in the surface and subsurface soil, sediments, and from current and potential
 future migration of contaminants from soils to groundwater, sediments and surface water;
- provide adequate protectiveness to human health from potential risks associated with inhalation of VOCs and PCBs potentially released from the Site;
- provide adequate protectiveness to human health from risks associated with potential future consumption of groundwater;
- provide adequate protectiveness to the environment, including plants and terrestrial and aquatic wildlife, from potential adverse impacts associated with contact with contaminated surface soils/sediments, and from current and future distribution of contaminants migrating in groundwater, sediments, and surface water;
- ensure adequate protection of groundwater, air, and surface water from the continued release of contaminants from soils/sediments; and
- comply with chemical-specific, location-specific, and action-specific applicable or relevant and appropriate requirements (ARARs) and other guidance for surface and subsurface soils, groundwater, air, and surface water for both existing and future site conditions.

Remedy Components

The cleanup approach, selected in the ROD, for the Site included two primary components: Source Control and Management of Migration (MOM). The Source Control component (as amended in June 1993) has been completed.

Source Control

Approximately 1,050 tons of contaminated on-site soil were removed in an Immediate Removal Action in 1983. Further investigation over the period from 1985 to 1987 showed that there was additional remaining soil contamination. The Source Control component of the 1989 ROD originally called for on-site solvent extraction treatment, but was amended in 1993 for off-site land disposal and/or off-site incineration. (Refer to the 1989 Record of Decision and the 1993 ROD Amendment for a complete description of the original Source Control components.) The Source Control component of the remedy was completed in November 1993.

Management of Migration

The MOM component of the 1989 ROD required that contaminated groundwater containing concentrations above specified target cleanup goals be extracted from the ground and treated on-site using filtration and carbon adsorption. The 1989 ROD required active groundwater treatment to reduce the concentration of VOCs to their cleanup goals as a means of reducing the migration of PCBs. The continued presence and/or migration of VOC contaminants in the on-site groundwater could potentially mobilize the relatively immobile particulate-bound PCBs.

The MOM remedy required that groundwater contamination at the Site be actively addressed by utilizing groundwater collection and carbon adsorption treatment. The system was to first entail construction of shallow interceptor trenches and deep extraction wells to collect the contaminated groundwater. Collected groundwater was to then be pumped through a granular filter to remove suspended/colloidal particulate matter.

Following this preliminary filtration step, the groundwater was to be treated by carbon adsorption to remove the organic contaminants found in the groundwater. All treated groundwater was to then be discharged back into the shallow aquifer through the use of shallow recharge trenches. The entire aquifer collection system was to extract approximately eight to sixteen gallons per minute for approximately two years.

Additionally, the ROD required the establishment of institutional controls on the Site for groundwater. These controls were to include a complete prohibition on the use of the on-site groundwater for drinking water purposes both during and, if necessary, following overall site remediation.

The MOM portion of the selected remedial action was designed primarily to provide adequate protectiveness to human health from effects associated with potential future use of on-site groundwater, if left untreated.

This was and is especially important since residents living in the immediate vicinity of the site use residential well water as a potable drinking water source and no municipal water supply system currently serves these residents.

The groundwater cleanup levels specified in the ROD focused on the levels of groundwater contamination at the Site, the current (at the time of the ROD) and potential future-use of the groundwater, and the time required to achieve the overall site remediation goals. Based on the contaminants found in the on-site groundwater, and as discussed in the ROD, the following contaminants and their respective Maximum Contaminant Level (MCL) or State of Maine Maximum Exposure Guideline (MEG) were identified as appropriate groundwater cleanup goals (as stated in the 1989 ROD):

Table 3. Groundwater Cleanup Levels

Contaminant	MCL/MEG		
Benzene	5 ug/L		
1,4-Dichlorobenzene	27 ug/L		
Chlorobenzene	47 ug/L		
PCBs	0.5 ug/L		

A ROD Cleanup Level for 1,2,4-trichlorobenzene of 680 ug/L was also established. Finally, groundwater cleanup goals were established for lead (5 ug/L), based on the then proposed MCL for lead, and for chloromethane (10 ug/L), based upon the analytical detection limits of this compound in water. The ROD indicated that because the PCBs in the groundwater at the Pinette's Site were found to be adsorbed onto soil particles, they were likely to be difficult to collect for groundwater treatment. The ROD also indicated that while EPA would collect and treat as much of the PCBs as technically feasible, it would probably be impossible to collect enough particulate-bound PCBs in order to reach the target cleanup goal. Therefore, in accordance with Section 117(a)(2) of CERCLA, the ROD invoked a waiver from compliance with the State of Maine Maximum Exposure Guideline for PCBs of 0.5 ug/L based on the technical impracticability, from an engineering perspective, of attaining this level.

Remedy Implementation

As discussed in the subsequent EPA Explanation of Significant Differences, promulgated in 1996 for groundwater at the Site, monitoring results subsequently demonstrated that the primary objective of the MOM component of the ROD (to reduce the migration of PCBs) was achieved without active treatment.

Groundwater sampling data collected during the MOM Pre-design studies (1993, 1994 and 1995) following the completion of the source control remedy (see the 1996 Summary of Environmental Data and Evaluation Report) indicated that the concentrations of VOCs had decreased to below or near the cleanup level established in the 1989 ROD. Decreases in VOC levels were attributable to the natural attenuation/

degradation of contaminants, to the extraction and treatment of over one million gallons of contaminated groundwater during Source Control remedial activities, and to improved groundwater sampling techniques.

The ESD also noted, that in monitoring wells, the maximum concentration of lead detected in unfiltered samples since EPA began using low flow sampling in 1995 was 14.5 ug/L, below the cleanup level (as amended by the ESD) of 15 ug/L. Also as indicated in the ESD, the maximum concentration of PCBs in unfiltered monitoring well samples detected since the low flow sampling began was 8.5 ug/L, which was still above the ROD Cleanup Level of 0.5 ug/L. VOCs for which ROD Cleanup Levels had been established for the Site were not detected in unfiltered samples above cleanup levels since low flow sampling began.

The 1989 ROD required active groundwater treatment to reduce the concentration of VOCs to their ROD Cleanup Levels as a means of reducing the migration of PCBs. The Pre-Design monitoring results demonstrated that the primary objective of the MOM component of the ROD had been achieved - PCB migration had been sufficiently reduced. The concentrations of VOCs were already below their cleanup levels. Furthermore, the migration of PCBs was sufficiently reduced; downgradient wells had not shown any contamination. Consequently, the ESD determined that there was no need to actively treat the groundwater.

The ESD recognized that despite the noted improvements, groundwater at the Pinette's Site still contained concentrations of PCB contaminants which would pose an unacceptable risk if ingested. Therefore, to prevent the ingestion and use of contaminated groundwater, the ESD indicated that institutional controls (e.g., deed restrictions and/or easements) would be established to prevent the installation of domestic wells on the Site.

Based upon a recommendation from the Agency for Toxic Substance and Disease Registry (ATSDR), the ESD indicated that residential well sampling did not need to be continued. Contaminants in residential wells were determined not to be at levels of public health concern. In addition, it was noted that the site-related groundwater had been shown not to flow toward domestic wells in the site area.

Finally, the ESD required that Five-Year Reviews of the Site be conducted to ensure that the remedy remained protective. At a minimum, groundwater samples were to continue to be collected from the monitoring well network to support Five-Year Reviews. The Five-Year Reviews were to determine whether the institutional controls were being effective and enforced, whether residential wells should be sampled, whether site conditions changed over time with respect to potential migration which would warrant a different remedial approach, or whether the institutional controls could be removed.

System Operations/Operation and Maintenance

As discussed above, the ESD indicated that active groundwater treatment was not required for the Pinette's Site. However, in accordance with the ESD, groundwater monitoring has continued at the Site to support the Five-Year Review process. Groundwater monitoring was conducted during multiple sampling rounds in 1999 and again during a single sampling round in September 2004. The results of the September 2004 sampling round are further discussed in Section VI.

As required by the ESD, institutional controls, in the form of a Restrictive Covenant, have been implemented at the Pinette's Site to prohibit the establishment of domestic wells for drinking water, within certain portions of the Site.

V. Progress Since the Last Five-Year Review

Since the time of performance of the first Five-Year Review (September 2000), the Pinette's Site has been de-listed from the NPL.

The August 2000 site inspection performed in support of the first Five-Year Review identified certain Operation and Maintenance (O&M) concerns related to the then existing monitoring well array. These findings were noted in the first Five-Year Review. As indicated therein, several monitoring wells had been destroyed and several other wells were in need of substantive maintenance. Based upon the review findings, a more detailed evaluation of the status of the monitoring well array was performed in 2001 (TtEC, 2001) as part of an overall assessment of the groundwater monitoring program. Included in this assessment were specific recommendations concerning monitoring well O&M activities that were warranted at the Pinette's Site. Also, included were specific recommendations regarding the installation of certain new monitoring wells, including appropriate locations for these wells. Based upon these recommendations, in late fall 2001, EPA implemented a monitoring well repair program, accompanied by the installation of several new monitoring wells.

Subsequent to the first Five-Year Review, and in preparation for site de-listing, several additional activities were conducted at the Pinette's Site, as follows:

- Performance of a site survey to support the implementation of institutional controls;
- Performance of a concrete pad PCB sampling program to support assessment of residual site risks;
- Installation of security fencing around monitoring well cluster #5; and
- Performance of a Groundwater Flushing Evaluation.

Site Survey - During late fall 2000, a site survey was conducted to formally locate individual wells within the existing monitoring well array. Subsequently, in 2001, supplemental survey work was performed to identify an approximate 200 foot radius around well cluster #5 as the potential site area within which institutional controls on groundwater use would be established.

Concrete Pad Sampling Investigation - In May and early June 2001, a sampling program was implemented at the Site to assess the residual levels of PCBs present in the concrete pad which had remained on-site following the completion of the soil remediation effort, several years prior. Laboratory analyses completed in June 2001 indicated the presence of generally trace to low levels of PCBs in some of the concrete samples. In many of the concrete samples PCBs were not detected. Following a risk evaluation, EPA determined that

the concrete pad did not pose an unacceptable risk to human health and the environment. Therefore, a decision was made not to remove the concrete pad prior to de-listing the Site from the NPL.

Fencing Installation - In July 2002, under the RAC I Contract, a fencing subcontractor installed fencing around well cluster #5. Approximately 70 linear feet of six-foot high chain link security fence with a swing access gate were installed around the well cluster. The fencing was installed to protect the integrity of this well cluster and also to prevent access to the well cluster, where sampling results had indicated the continuing presence of trace PCBs in groundwater, at concentrations above regulatory threshold levels.

Groundwater Flushing Evaluation - The results of the 1999 groundwater sampling program, conducted in support of the first Five-Year Review, indicated the presence of PCBs in groundwater at well cluster #5 at concentrations above regulatory threshold levels protective of human health. EPA, therefore, determined that institutional controls would be required around well cluster #5 to prevent ingestion of contaminated groundwater. To help access the approximate size of the area around well cluster #5 over which institutional controls would be required, a groundwater PCB flushing evaluation was performed (TtEC, 2002) to assess PCB migration through the overburden aquifer. The objective of this evaluation was to estimate the potential mobility of PCBs in groundwater around well cluster #5 over time.

The results of the groundwater flushing evaluation indicated that PCB migration downgradient from well cluster #5 was predicted to be relatively slow in the overburden aquifer. The results of this evaluation subsequently supported ongoing EPA assessments regarding the areal extent of institutional controls potentially warranted at the Pinette's Site.

Final Remedial Action Report for Groundwater - EPA completed the Final Remedial Action Report for Groundwater at the Pinette's Site in July 2002. The report summarized the background of Operable Unit #2 (MOM) at the Site, as well as groundwater contamination trends, and relevant O&M issues.

NPL Delisting

In July 2002, EPA formally announced the initiation of the process of delisting the Pinette's Site from the NPL. A "Notice of Intent to Delete [NOID]" was issued in mid-July followed by a "Direct Final Notice of Deletion" [DFND].

As previously noted, the ESD for the Pinette's Site required the establishment of institutional controls at the Site due to the continuing presence of PCBs in groundwater at monitoring well cluster #5, above regulatory threshold levels. In response to this requirement, in August 2002, the Maine DEP developed and implemented a <u>Declaration of Restrictive Covenant</u> for portions of the property owned by Roger Pinette. This Restrictive Covenant establishes institutional controls regarding land and groundwater use within a circle 260 feet in diameter, surrounding well cluster #5. Activities prohibited within the institutional control area include:

Alteration of surface water, groundwater or the water table;

- · Change in use from the present land use;
- · Tampering with or removing monitoring wells;
- · Tampering with or removing survey markers; and
- Any activity which might disturb the contaminated soil or impair the integrity of the overlying soil cover
 materials in the restricted Area.

In September 2002 the Pinette's Site was de-listed from the NPL.

VI. Five-Year Review Process

Administrative Components

EPA, the lead agency for this Five-Year Review, notified Maine DEP and the Potentially Responsible Parties (PRPs) in 2005 that the Five-Year Review would be completed. EPA issued a scope of work to Metcalf & Eddy, Inc. under EPA RAC Contract 68-W6-0042 in March 2005 to assist EPA in performing this Five-Year Review. Metcalf & Eddy subsequently assigned primary responsibility for this work effort to its subcontractor, Tetra Tech EC, Inc. (TtEC). The EPA Remedial Project Manager is Ms. Almerinda Silva and the Maine DEP Project Manager is Ms. Tracy Weston Kelley.

The following team members assisted in the review:

- Mr. Richard Leighton, EPA Assistant Project Manager
- Mr. Man Chak Ng, EPA Attorney
- Mr. Daniel Granz, EPA OEME Staff
- Ms. Mary Jane O'Donnell, EPA Section Chief
- Metcalf & Eddy (M&E) RAC Team, Technical Staff

This second Five-Year Review includes the following activities: a review of relevant documents (see Attachment 4), an evaluation of recent groundwater monitoring data, a risk review, and a brief ARAR review. The EPA OEME laboratory staff conducted the September 2004 groundwater sampling efforts. The completed Five-Year Review report is available in the information repository.

Community involvement

During summer 2005, EPA notified the Community of Washburn that the Five-Year Review of Pinette's Site was occurring. However, community involvement pertaining to the Site has historically been somewhat limited.

Document Review

This Five-Year Review has consisted of a review of relevant documents including decision documents and status reports, as listed in Attachment 4.

Data Evaluation

This section briefly summarizes the results of the most recent (September 2004) groundwater sampling round and briefly considers the results in comparison to earlier results for the 1999 sampling round.

Data Review

Data from the September 2004 sampling event was reviewed and briefly compared with data from previous site investigations. It should be noted that the September 2004 sampling event is the only site data collected since two groundwater sampling events completed in 1999, prior to the first Five-Year Review. During the September 2004 sampling event, groundwater samples were collected from twelve monitoring wells at the Site, and analyzed for total PCBs, filtered PCBs and VOCs. Samples were not analyzed for lead. Results of this sampling event have been briefly compared to previous site data as summarized below.

Groundwater samples at the Pinette's Site have been collected using the EPA Region I low flow groundwater sampling procedures since 1995. The low flow procedure provides the most representative sample of the groundwater from the monitoring wells. Since the 1995 change in sampling methods, the only contaminants of concern detected above the ROD cleanup levels have been PCBs and lead during the 1999 sampling round. During the September 2004 sampling round only PCBs were found to exceed the ROD Cleanup Levels, although analyses for lead were not performed.

During the September 2004 sampling round, results for eight of the twelve monitoring wells were non detect for PCBs. As noted in Table 4 below, PCBs were detected at wells SMW-5A, DMW-5, BMW-5 and SMW-7A. Only the concentration at DMW-5 (2.5 ug/L) exceeds the ROD cleanup goal for total PCBs of 0.5 ug/L. The filtered sample collected from monitoring well DMW-5 had a detected concentration for total PCBs of 0.21 ug/L, below the ROD cleanup goal.

Table 4. Summary of PCB Data

	SMW-5A	DMW-5	BMW-5	SMW-7A
Total PCB Homologues (ng/L)	7.3	2500	44	18

For the VOC samples collected during the 2004 groundwater sampling event the only contaminants of concern detected in any groundwater samples were chlorobenzene, 1,4-dichlorobenzene and 1,2,4-trichlorobenzene. None of the detections of VOCs in groundwater exceeded the cleanup goals for the Site.

Table 5 summarizes the maximum concentrations for compounds of concern detected in the samples collected in 2004. The maximum concentrations detected in previous groundwater sampling rounds since the completion of the RA, are included for comparison. PCBs were the only contaminant of concern that was found to exceed the ROD cleanup goal in groundwater for samples collected in 2004. The maximum concentration, and the only result above the cleanup goal, was at monitoring well DMW-5 which has historically had the highest concentration for PCBs in groundwater since the completion of the RA. The concentration detected in September 2004 is slightly higher then the concentration detected in 1999 (2.2 ug/L) but significantly less than the level detected during the post RA sampling (8.5 ug/L). The concentration of PCBs in bedrock well BMW-5 decreased from 0.7 ug/L in 1999 to 0.044 ug/L in 2004. The other two locations with detections of PCBs in 2004 were wells SMW-5A and SMW-7A, with concentrations reported at 0.0073 ug/L and 0.018 ug/L, respectively. The September 2004 results for PCBs indicate that relatively little change has occurred since the 1999 sampling rounds. Overall, it appears that any migration of PCBs from the original area of contamination around DMW-5 is proceeding at a slow rate.

It should be noted that 1,4-dichlorobenzene (11 ug/L) and 1,2,4-trichlorobenzene (13 ug/L) were detected in 2004 although they had not previously been detected since the RA. Both compounds were reported at concentrations below their ROD cleanup levels. However, both compounds are typically associated with PCBs and may function to solubilize/mobilize PCBs in groundwater. Therefore, future trends in these compounds should be noted.

It should also be noted that three different analytical methods have been used to analyze PCBs in groundwater at Pinette's. Gas chromatography/low resolution mass spectrometry (GC/LRMS) was used in 2004, gas chromatography/high resolution mass spectroscopy (GC/HRMS) in 1999 and gas chromatography/electron capture detector (GC/ECD) prior to 1999. The mass spectrometry methods used recently have somewhat lower detection limits than the previously used GC methods. Therefore, trace levels of PCBs observed in certain wells in recent sampling rounds may have previously been present in these wells but simply not detected.

Table 5. Summary of 2004 Groundwater Sampling Results

Contaminant	Cleanup Level	Maximum Concentration Post RA	Location	Maximum Concentration 1999	Location	Maximum Concentration 2004	Location
Chlorobenzene	47	12	SMW- 5/5A	8	SMW- 5/5A	14	SMW-5A
PCBs	0.5	8.5	DMW-5	2.2	DMW-5	2.5	DMW-5
1,4-Dichlorobenzene	27	ND	Ī	ND		11	SMW-5A
1,2,4-Trichlorobenzene	680	ND		ND		13	DMW-5

Results are in ug/L

PCB results for Post RA are Total PCB Aroclors. For 1999 and 2004 the results are Total PCB Homologue groups. ND - Sample not detected.

Longer Term Trends

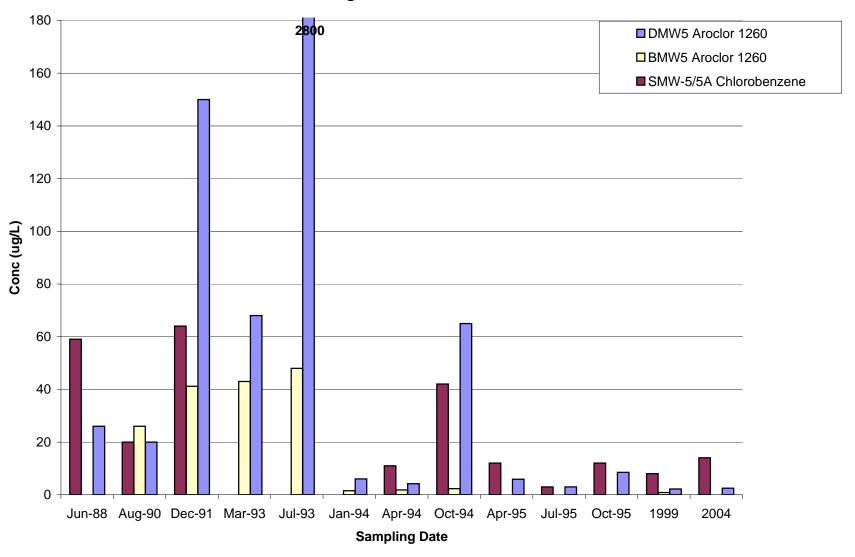
Following completion of the Source Control Remedial Action, PCBs were detected above the ROD Cleanup Level in only the 5-series cluster (DMW-5 and BMW-5) and on a single occurrence in well SMW-2. After implementation of the low flow sampling procedure in 1995, concentrations exceeded the ROD Cleanup Level for PCBs only in well DMW-5. PCBs were detected at concentrations less than the ROD Cleanup Level in well BMW-5. Results from the two limited 1999 sampling rounds indicated that concentrations of PCBs decreased slightly in well DMW-5 from concentrations ranging from 3 to 9 ug/L in 1995 to an average of 2 ug/L in 1999. As noted above, the September 2004 results for PCBs in well DMW-5 were 2.5 ug/L. Concentrations of PCBs in well BMW-5 increased slightly from less than 0.5 ug/L in 1995 to an average of 0.7 ug/L in 1999, possibly reflecting some downward migration of PCBs into the bedrock aquifer. PCBs were detected at low concentrations (0.001 to 0.006 ug/L) in certain other wells (SMW-2, SMW-5/5A, and DMW-4) sampled in 1999. The detection of these low concentrations is likely due to the greater sensitivity of the HRMS analytical method and, based on the available data, should not necessarily be attributed to lateral migration at this time.

Compounds benzene, chlorobenzene and chloromethane were not detected above cleanup goals of 5, 47, and 10 ug/L respectively, in samples collected in 1995. Chlorobenzene and chloromethane were not detected above ROD Cleanup Levels in 1999 or 2004, nor was benzene detected in the wells sampled in 1999 or 2004. 1,4-Dichlorobenzene and 1,2,4-trichlorobenzene have not been detected above ROD Cleanup Levels (27 ug/L and 680 ug/L, respectively) in any groundwater samples following completion of the Source Control RA.

In summary, the results from the 1999 and 2004 sampling rounds indicate that PCBs are the only contaminant of concern remaining at concentrations above ROD Cleanup Levels. For the 2004 data, PCB concentrations exceed cleanup levels in the well cluster #5 deep well (DMW-5) located near the original source of contamination.

Figure 1 presents a comparison of the longer term trends for Arochlor 1260 in wells DMW-5 and BMW-5 within well cluster #5 in the center of the Site. Also included is longer term trend data for chlorobenzene for well SMW-5/5A. The results indicate that since the completion of the source control remedial action in 1993, the concentrations for these compounds have been relatively constant. Beginning with the January 1994 data, and with the exception of the October 1994 data, the concentrations in groundwater are well below the levels prior to the source control remedial action. The more recent long term trend at the Site shows a low but persistent level of PCB contamination in the DMW and BMW wells.

Figure 1
Long Term Concentration Trends



Site Inspection

The monitoring well array at the Pinette's Site was inspected during the September 2004 sampling round conducted by EPA OEME staff. Mr Dan Granz of OEME has indicated that all of the monitoring wells in the existing array continue to be operational, although not all of the wells in the array were sampled during the September 2004 event. Some minor O&M issues were noted. A couple of the monitoring wells had slightly bent stand pipes and the outer casing on one well was cracked. Mr. Granz noted that these did not appear to have been recently occurring problems.

While conducting the monitoring well sampling program, OEME staff briefly noted a few additional observations concerning the Site. Specifically, it was noted that Roger Pinette appeared to be slightly expanding the size of the area in which he was conducting auto salvage and storage operations. At the time of the OEME visit, some relatively limited earth moving activities were being conducted outside of the area within which institutional controls had been imposed.

More recently, in support of this Five-Year Review, the Pinette's Site was formally inspected during August 2005 by Mr. Richard Leighton of EPA's project management staff. The results of this inspection are summarized in the site inspection report presented in Attachment 5. The monitoring well array was observed to be in relatively good condition and usable, although a few defects were noted (see Attachment 5). During this inspection, it was observed that some portions of the perimeter fencing at the Site were missing or down. However, it was also noted that given the remoteness of the Site, trespassing did not appear to be a significant concern. A few cracks apparently due to frost heaving were also noted in the concrete pad. Overall, it was noted that the property owner appeared to be complying with the intent of the Restrictive Covenant.

Site Interviews

During the site inspection, Mr. Roger Pinette and Rita Pinette were interviewed. Mr Pinette indicated that relatively little had changed at the Site since the completion of the remedial action for soils. Mr Pinette continues to store and repair vehicles on his property and to sell vehicle and small motor parts. Ms. Pinette had relatively little comment on site activities and the review process.

VII. Technical Assessment

This section considers the overall functioning of the remedy at the Pinette's Site and discusses potential changes in exposure assumptions and remedial action objectives

Ouestion A – Is the remedy functioning as intended by the decision documents?

The review of documents, ARARs, risk assumptions, the 2004 groundwater sampling data and the August 2005 site inspection indicates that the Pinette's Salvage Site groundwater remedy is functioning as intended by the ROD and ESD.

Institutional Control

Institutional controls to prevent the installation of on-site drinking water wells and ingestion of contaminated groundwater have been implemented. In August 2002, the Maine DEP developed and implemented a <u>Declaration of Restrictive Covenant</u> for portions of the property owned by Roger Pinette. This Restrictive Covenant establishes institutional controls regarding land and groundwater use within a circle 260 feet in diameter, surrounding well cluster #5. As previously noted, activities prohibited within the institutional control area include:

- Alteration of surface water, groundwater or the water table;
- · Change in use from the present land use;
- Tampering with or removing monitoring wells;
- · Tampering with or removing survey markers; and
- Any activity which might disturb the contaminated soil or impair the integrity of the overlying soil cover materials in the restricted Area.

During a field sampling visit to the Site by EPA in September 2004 and the August 2005 site inspection, the property owner appeared to basically be observing the requirements of the Restrictive Covenant. The property owner was observed to be conducting certain auto salvage/storage activities within the area of institutional controls. However, these activities do not appear to be adversely affecting the intent of the Restrictive Covenant. There are no known current or planned changes in land use at the Site that would suggest that the Restrictive Covenant will not continue to be effective.

Since Maine DEP's implementation of the <u>Declaration of Restrictive Covenant</u>, the State of Maine on June 10, 2005 adopted the Uniformed Environmental Covenants Act ("UECA") as prepared by the National Conference of Commissioners of Uniform State Laws to provide a systematic approach to adoption and recording of environmental covenants such as deed restrictions and to protect the legal integrity of covenants once recorded. It is Public Law 370 (S.P. 543, L.D. 1559) to be codified as Title 38, Section 3001-3013 of the Maine Revised Statutes and is expected to become effective September 17, 2005. The traditional common law of property presents a number of questions about the enforceability of institutional controls

which should be addressed by the UECA. Moreover, the UECA provides that "an instrument that creates restrictions or obligations with respect to real property that would qualify as activity and use limitations except for the fact that the instrument was recorded before the effective date of this chapter is not invalid or unenforceable because of any of the limitations on enforcement of interests described in subsection 2 [see footnote 1] or because it was identified as an easement, servitude, deed restriction or other interest." Accordingly, the enactment of the UECA bolsters the enforceability of the Restrictive Covenant; regardless, as discussed above, its prohibitions have been complied with since its implementation in 2002.

Remedial Action Performance

Recent (September 2004) groundwater data from site monitoring wells indicates that the concentrations of most contaminants of concern remain below ROD Cleanup Levels. Concentrations of PCBs remain slightly above the ROD Cleanup Level only in the center of the Site at well cluster #5. This indicates that the source control remedy to remove contaminated soil was effective and that minimal contamination is migrating into the groundwater from site soils. In addition, groundwater at the Site is migrating away from domestic wells in the area.

It is noted that the September 2004 groundwater results included low level detections for 1,4-dichlorobenzene and 1,2,4-trichlorobenzene. These compounds were detected at concentrations well below their ROD cleanup levels. However, these compounds were not detected during the 1999 sampling rounds. Both compounds are often associated with PCB oils and were associated with PCBs during the Pinette's soil remediation. Therefore, it would appear appropriate to continue to include analyses for these compounds in future groundwater sampling at the Site.

Cost of System Operations/O&M

Costs for site O&M are currently low and limited to maintaining institutional controls, and maintaining the monitoring well array and associated fencing.

An environmental covenant that is otherwise effective is valid and enforceable even if:

- A. It is not appurtenant to an interest in real property;
- B. It can be or has been assigned to a person other than the original holder;
- C. It is not of a character that has been recognized traditionally at common law;
- D. It imposes a negative burden;
- E. It imposes an affirmative obligation on a person having an interest in the real property or on the holder;
- F. The benefit or burden does not touch or concern real property;
- G. There is no privity of estate or contract;
- H. The holder dies, ceases to exist, resigns or is replaced; or
- I. The owner of an interest subject to the environmental covenant and the holder are the same person.

In particular, 38 M.R.S.A. § 3005(2) states:

Early Indicators of Potential Remedy Failure

Evaluation of the recent September 2004 groundwater data, including trend analyses, does not indicate any contaminant concentration changes which appear to be a cause for future concern. ROD cleanup levels are only exceeded for PCBs and only at well cluster #5 (well DMW-5). The groundwater sampling data did not indicate evidence of any significant downgradient migration of PCBs from well cluster #5.

Site ARARs

A brief review indicates that there have been no changes in ARARs since the first Five-Year Review that would impact the status of the Pinette's Site.

Question B – Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives used at the time of the remedy still valid?

This central question for this Five-Year Review was addressed by considering the following collection of topics as per the EPA guidance for Five-Year Reviews (EPA, 2000b):

Standards and To Be Considered Requirements

The only remaining Standards and To Be Considered requirements pertinent to the ongoing institutional controls are those forming the basis of the groundwater extraction for drinking water prohibition within the area restricted by institutional controls. These were the EPA National Primary Drinking Water Regulations Maximum Contaminant Levels (MCLs) and Maximum Contaminant Level Goals (MCLGs) (EPA, 2002) and the Maine Department of Human Services, Bureau of Health MEGs for Drinking Water (MEGS, 2000). A review of these requirements for the constituents with groundwater cleanup levels indicated the following:

- PCBs Both the current MCL and the current MEG are 0.5 ug/L, the same as the ROD Target MOM
 Cleanup Level for groundwater. Recent groundwater sampling results indicate that this ROD Target
 MOM Cleanup Level has not yet been met in all wells at the Pinette's Site. (Well DMW-5 contained
 a PCB concentration of 2.5 ug/L in 2004.)
- Benzene Both the current MCL and the current MEG are 5 ug/L, the same as the ROD Target MOM
 Cleanup Level for groundwater. Recent groundwater sampling results indicate that this ROD Target
 MOM Cleanup Level is being met.
- 1,4-Dichlorobenzene Both the current MCL and the current MEG are 75 ug/L, which is higher (less stringent) than the ROD Target MOM Cleanup Level for groundwater (27 ug/L). Recent groundwater sampling results indicate that this ROD Target MOM Cleanup Level is currently being met. It should, however, be noted that the concentration reported during the September 2004 sampling round is slightly less than 50% of the ROD Cleanup Level.

- Chlorobenzene Both the current MCL and the current MEG are 100 ug/L, which is higher (less stringent) than the ROD Target MOM Cleanup Level for groundwater (47 ug/L). Recent groundwater sampling results indicate that the ROD Target MOM Cleanup Level is being met.
- 1,2,4-Trichlorobenzene Both the current MCL and the current MEG are 70 ug/L, which is lower (more stringent) than the ROD Target MOM Cleanup Level for groundwater (680 ug/L). Recent groundwater sampling results indicate that this ROD Target MOM Cleanup Level and the more stringent MCL/MEG are both being met.
- Chloromethane There currently is no MCL or MEG for this constituent; The ROD Target MOM
 Cleanup Level for groundwater (10 ug/L) was set at the Contract Laboratory Program (CLP) analytical
 detection limit. Recent groundwater sampling results indicate that the ROD Target MOM Cleanup Level
 is being met.
- Lead Both the current MCL and the current MEG are 15 ug/L, the same as the ROD Target MOM
 Cleanup Level for groundwater. The 1999 groundwater sampling results indicated that the ROD Target
 MOM Cleanup Level was met at that time. No analysis for lead was performed during the 2004
 sampling round.

Based on this review, the ROD Target MOM Cleanup Levels for groundwater continue to be protective. It should be noted that MCLs and MEGs are not always purely risk-based criteria, or necessarily seek to achieve the same exact target risk levels.

Bases for Cleanup Levels

As discussed above, the bases of the groundwater cleanup levels of remaining interest at the Site were principally the EPA National Primary Drinking Water Regulations MCLs and MCLGs and the Maine Department of Human Services, Bureau of Health, MEGs for Drinking Water. The values for these criteria for the groundwater contaminants addressed in the ROD have not changed since the Five-Year Review performed in 2000. Similarly, the CLP analytical detection limit for VOCs (the basis of the cleanup level for chloromethane) and the reference dose for 1,2,4-trichlorobenzene (the basis of the cleanup level for that constituent) (EPA, 2005) have not changed since the first Five-Year Review. As such, there have been no changes in the bases for the ROD Cleanup Levels since the first Five-Year Review.

Changes in Expected Land Use

The Restrictive Covenant signed in August of 2002 prohibits any change in land use within the Restricted Area of the Pinette's Site relative to the use at the time of the signing of the covenant without the prior written approval of the Maine DEP. The Restricted Area of the Site continues to be used, in part, as a vehicle repair and salvage yard.

At the time of the EPA September 2004 visit to the Pinette's Site, staff members observed a limited expansion of the area being used for automotive storage and salvage operations. Observations suggested that the property owner was clearing some additional land of vegetation in order to expand the area for vehicle repair and storage operations. To date, observations including the August 2005 site inspection indicate that the limited expansion has occurred in areas outside of the area affected by the institutional controls. Earth moving activities have not observed within the area of the Restrictive Covenant.

Continued expansion of the auto salvage operations at this Site might, if improperly implemented, result in some increased groundwater contamination at the Site (from petroleum products). This conceivably might impact site monitoring in one of two ways. First, it is possible that any significant increase in groundwater contamination from petroleum products due to spillage could include aromatic hydrocarbons, of which, benzene is one. Since there is a ROD Cleanup Level for benzene, future groundwater monitoring at the Site might be adversely impacted by any petroleum spills.

Second, depending upon location, petroleum spills at the Site could act to mobilize any residual PCBs in soils, facilitating migration to groundwater. Petroleum related volatile organics in groundwater could also significantly accelerate PCB migration downgradient from monitoring well cluster #5. Therefore, in the future, it would appear appropriate to continue occasional monitoring of salvage operations at the Site to ensure that conditions that could adversely impact the Site do not arise.

New Routes of Exposure or New Receptors

No new extraction wells are known to have been installed within the Restricted Area, and no water is known to be extracted from the remaining monitoring wells for consumptive or non-consumptive use. No previously unconsidered receptors are known to be accessing the Site or the Restricted Area.

Newly Identified Contaminants

No new contaminants have been detected in the groundwater sampling conducted at the Site since the first Five-Year Review. However, two groundwater contaminants that were not reported during the 1999 sampling rounds, 1,4-dichlorobenzene and 1,2,4-trichlorobenzene, were detected during 2004.

Unanticipated Toxic Byproducts of the Remedy

No treatment or active remedial activity that may create toxic byproducts has been performed on-site since the first Five-Year Review (all active treatment and response activities were conducted prior to this review period).

Changes in Site Conditions

No significant changes in site conditions have been observed since the first Five-Year Review. It appears that a somewhat increased number of vehicles are being stored at the Site. The perimeter fencing for well

cluster #5 and boundary markers of the Restricted Area are intact. Some ruts in the ground surface (likely from vehicle traffic) have been observed. However, none of these changes in site conditions jeopardize the protectiveness of the selected remedy as modified by the ESD.

Changes in Toxicity Values or Other Contaminant Characteristics

Since the first Five-Year review was performed in 2000, only two of the groundwater chemicals of concern have had published changes to relevant toxicity values: benzene and chloromethane (methylene chloride) (EPA, 2005). Benzene was assigned a new oral Reference Dose (RfDo) and inhalation Reference Concentration (RfC) by EPA in 2003. However, these changes in relation to the non-carcinogenic effects were not significant relative to the carcinogenic effects of benzene, and the other non-risk considerations incorporated into the setting of the MCL for benzene. Neither the MCL or the MEG were adjusted based on these toxicological changes. Chloromethane was assigned a new inhalation RfC and its carcinogenicity was reassessed in 2001 by EPA. As the ROD Target MOM Cleanup Level for chloromethane was established based on the CLP analytical detection limit (and not a risk-based calculation), this change in the toxicity value would not affect the ROD Cleanup Level.

Changes in Risk Assessment Methods

There has been new draft guidance published by EPA on the evaluation of the vapor intrusion to indoor air exposure pathway since the ROD (EPA, 2002b). This guidance has raised the level of awareness about, and focused greater attention on, this potential pathway. However, potential vapor intrusion into indoor air is not a concern with regard to protectiveness because: (1) the remaining levels of VOCs in the groundwater at the Site have been measured to be very low; (2) there are no occupied buildings currently within the Restricted Area; and (3) the Restrictive Covenant prohibits the construction or placement of any buildings within the Restricted Area without prior written permission of the Maine DEP.

Question C - Has any other information come to light that could call into question the protectiveness of the remedy?

No additional information has been identified that would call into question the protectiveness of the remedy.

There have been no additional changes in site ARARs as identified in the ROD and ESD other than the items noted in Question B above. There is no additional information that calls into question the protectiveness of the remedy.

Technical Assessment Summary

According to the data reviewed and the site inspection, the remedy is functioning as intended by the ROD and the ESD. There have been no changes in the physical conditions of the Site that would adversely affect the protectiveness of the remedy.

The September 2004 monitoring data continues to indicate that PCB contaminated groundwater remains predominantly in the immediate vicinity of well cluster #5. Field observations indicate that the property owner appears to be abiding by the Restrictive Covenant pertaining to the 260 foot diameter area surrounding well cluster #5.

Site inspection results indicate that the Restrictive Covenant that has been implemented as an institutional control for the Site appears to be functioning appropriately. The monitoring well array remains in an overall workable condition. There is no evidence of significant damage to the well array. There is also no evidence of improper excavation within the restricted area.

VIII. Issues

The following table (Table 6) summarizes the relatively few issues that are noted concerning the current status of the Pinette's Site. However, it should be emphasized that despite these few issues, the overall remedy is considered to be protective of human health and the environment.

As noted in Table 6, the property owner currently appears to have slightly expanded the overall size of his auto salvage and storage operations. Excavations and other property alterations conducted to support expansion are probably not a direct concern as long as the Restrictive Covenant is adhered to and excavation does not occur within the 260 foot diameter circle within which institutional controls have been established. However, in the past, a number of site wells have been damaged or destroyed, due at least in part, to ongoing salvage yard operations. Therefore, occasional site visits should be conducted to monitor the integrity of the well array and adherence to the Restrictive Convenant.

It should also be noted that expansion of the auto salvage operations might also have an indirect effect on the Site in the future. Specifically, the more active the auto salvage and storage operations, the greater the long term possibility of some contamination (particularly from spillage of automotive fluids) seeping into the groundwater at the Site. Spillage of volatile aromatic compounds might have two effects on site water quality. First, such compounds might contain benzene which is a site contaminant for which the ROD has specified a cleanup goal. Therefore, site monitoring results might be impacted.

In addition, any significant spillage of automotive related organic fluids, including oils, gasoline etc. could act to mobilize any residual PCBs remaining in overburden soils, including around well cluster #5. Since PCBs can be solubilized by organic volatiles and liquids, they might be detected in additional wells on-site and/or tend to migrate more readily downgradient from well cluster #5. Either effect might impact the institutional control assumptions currently in place.

One minor issue warranting longer term consideration relates to the groundwater monitoring program at the Pinette's Site. The September 2004 sampling program involved sampling at a limited number of site wells. In addition, analyses were not performed for all of the site contaminants for which the ROD has specified cleanup levels. In particular, no metals analysis (for lead) was performed. The September 2004 sampling

round is the only sampling round conducted since the previous Five-Year Review. Therefore, given the limited data set, it is not possible for the Review to confirm the absence of lead in site groundwaters.

A second issue relating to the groundwater monitoring program relates to the selection of analytical techniques for PCB analysis. Including the 1995 sampling round, three different analytical techniques (Aroclor analysis by GC, high resolution mass spectroscopy, and most recently LRMS) have been used to analyze groundwater PCB data during the last three sampling events. All three methods are valid and all three methods can monitor the regulatory threshold. However, each method possesses a slightly different detection limit for PCBs. Therefore, from the perspective of low level PCB groundwater trend analysis within the area of institutional controls, it would be preferable to try to maintain the same method. Doing so would reduce the possibility of observing trace levels of PCBs either appearing or disappearing from a given well depending upon what analytical method was used.

Table 6. Outstanding Issues

Outstanding Issues	Currently Affects Protectiveness	Affects Future Protectiveness
Site Property Owner Appears to be Slightly Expanding Auto Salvage/Storage Operations	No - Activities within the Area of Institutional Controls have been Consistent with the Intent of the Restrictive Convenant	Possibly - Spillage of any Lead or Benzene Containing Compounds Could Trigger ROD Cleanup Level Exceedance
Site Property Owner Appears to be Slightly Expanding Auto Salvage/Storage Operations	Same as Above	Possibly - Spillage of Organic Automotive Fluids from Expanded Operations Might Enhance Groundwater PCB Migration
Groundwater Sampling Program Does Not Include Complete Well Array	No - There is No Current Evidence of Any Significant Migration of PCBs	Conceivably - Using Too Few Sampling Locations over Multiple Sampling Events Might Result in Missed Contaminant Trends
Groundwater Monitoring Program Has Utilized Multiple Methods for PCBs	No - The Analytical Methods are Adequate to Monitor Compliance with PCB Cleanup Goal	No - But Could Make Future Groundwater PCB Trend Analysis More Difficult.

iX. Recommendations and Follow-up Actions

Based upon the results of the site inspection, the review of the most recent groundwater data, there are no near term followup steps that are required at the Pinette's Site. However, over the longer term, there are a few actions that may be warranted to ensure that site protectiveness is maintained.

It is recommended that inspection visits to the Site be conducted approximately once every three years (one visit between Five-Year Reviews) in order to monitor the ongoing auto salvage operations. Such visits would help to ensure that compliance with the existing Restrictive Covenant continues and that no changes in site

use occur within the area of institutional controls. In addition, such visits could function as "early warning" indicators of possible concerns should any visual evidence of spillage of automotive fluids be noted.

Also, over the longer term, it is also recommended that a more consistent approach be established for the groundwater monitoring program. In this regard, it is recommended that an effort be made to perform the same type of PCB analyses (for example LRMS). Use of a consistent method will assist in reviewing longer term trends in low level PCB data and avoid possible confusion resulting from changing detection limits associated with different analytical techniques. It is also suggested that if only a limited subset of the existing well array is sampled during a given sampling round, a consistent sampling approach be established. It is suggested that the sampling approach include core wells that are always sampled as well as a few wells that are varied somewhat during different sampling rounds. This would potentially allow better monitoring for any possible adverse impacts from the ongoing auto salvage operations.

Table 7. Recommendations and Follow-up Actions

Issue	Recommendations	Party Responsible	Schedule	Protectiveness
Site Property Owner Appears to be Slightly Expanding Auto Salvage/Storage Operations	Conduct Site Visits Approximately Every 3 Years to Monitor Institutional Controls	EPA/Maine DEP	To Be Determined	Would Enhance Protectiveness by Facilitating Early Warning
Monitoring Well Sampling Array is Slightly Limited	Consider Increasing Number of Wells Sampled Slightly	EPA	To Be Determined	Would Provide More Comprehensive Site Monitoring
Groundwater PCB Analysis Techniques Vary During Recent Sampling Rounds	Consider Maintaining Low Resolution Mass Spectroscopy in Future Sampling Rounds	EPA	To Be Determined	Does Not Affect Protectiveness but May Assist Trend Analysis

X. Protectiveness Statements

The remedy for groundwater at the Pinette's Site remains protective of human health and the environment.

The institutional controls that were implemented in the 2002 in the form of a Restrictive Covenant appear to be functioning appropriately. No drinking water wells have been located within the restricted area. In addition, the property owner appears to be complying with the land use restrictions within the 260 foot diameter imposed by the Restrictive Covenant.

Groundwater sampling results indicate that PCB concentrations at well DMW-5 still exceed the ROD cleanup level of 0.5 ug/L. However, this well is located at the center of the area governed by the Restrictive Covenant. In addition, the latest sampling results do not indicate evidence of significant downgradient PCB

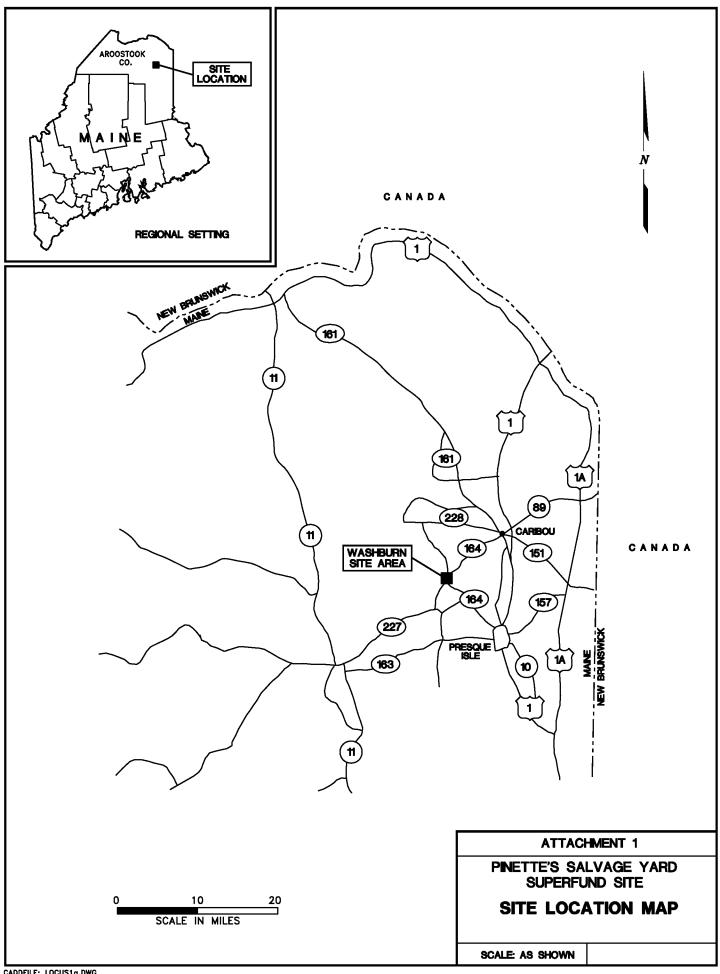
migration beyond the area governed by the institutional controls. Therefore, incidental ingestion of contaminated groundwater is not a concern.

With respect to off-site wells, it should also be noted, that groundwater flow direction is to the southeast. Available information indicates that all of the nearby residential wells continue to be located to the northeast and southwest of the Site. Therefore, even if migration of groundwater contaminants from the Site were to unexpectedly occur, it should not pose any immediate risk to residential wells. In summary, risks to off-site wells continue to be mitigated.

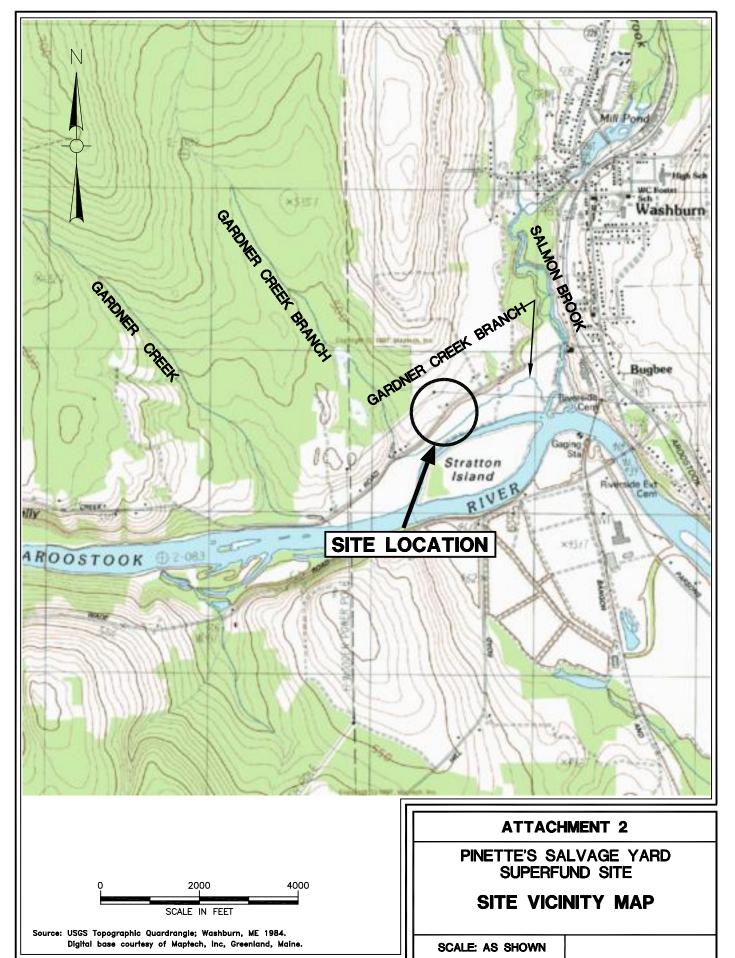
XI. Next Review

This is a statutory site that requires ongoing Five-Year Reviews. The next review will be conducted within five years of the completion of this Five-Year Review report (September 2010).

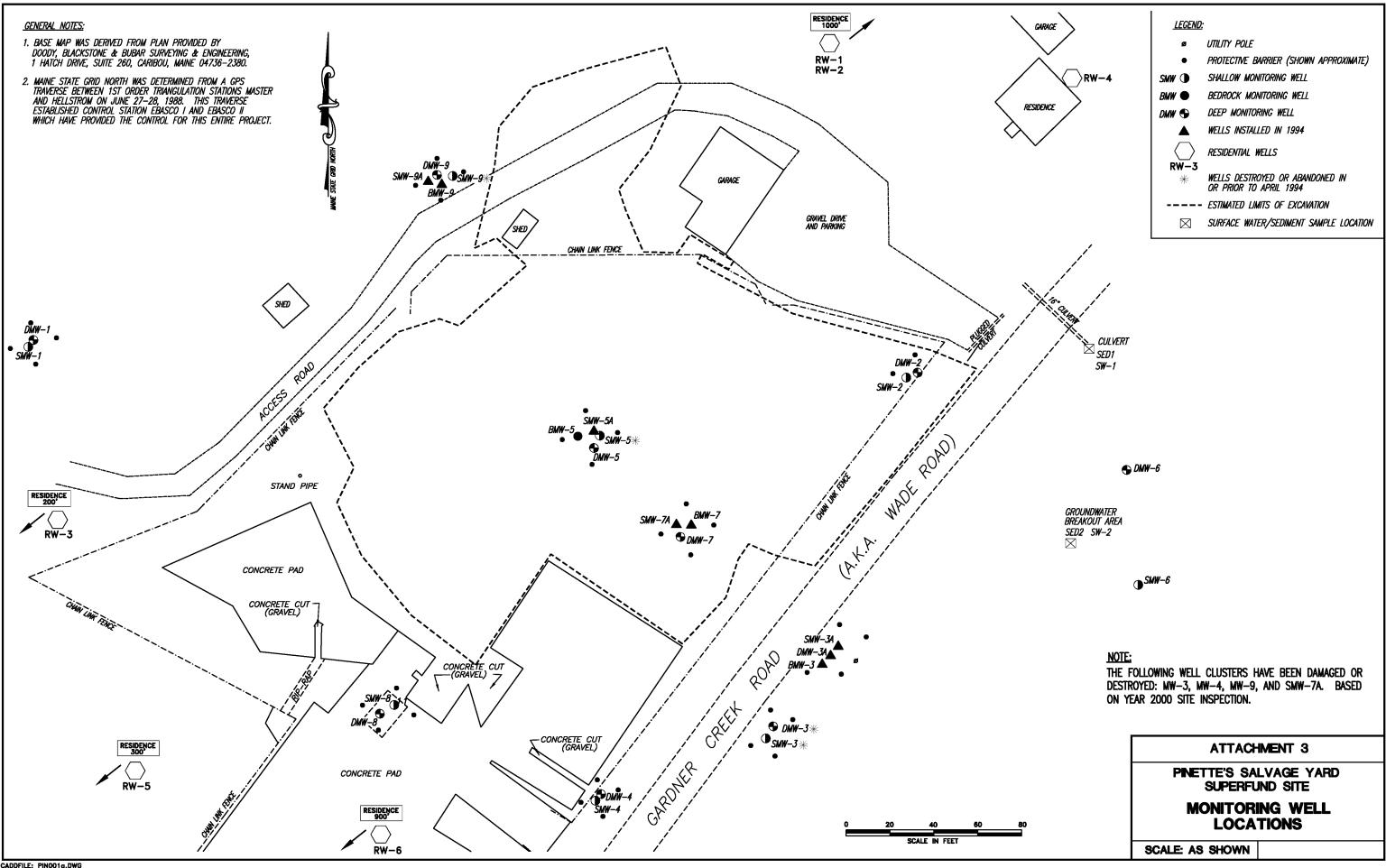
ATTACHMENT 1 Site Location Map



ATTACHMENT 2
Site Vicinity Map



ATTACHMENT 3 Monitoring Well Locations



ATTACHMENT 4 List of Documents Reviewed

Documents Reviewed

- CERCLA Record of Decision Amendment for Pinette's Salvage Yard Superfund Site, Washburn, Aroostook County, Maine, June 2, 1993.
- CERCLA Record of Decision for Rinette's Salvage Yard Superfund Site, Washburn, Aroostook County, Maine, May 30, 1989.
- Comprehensive Five-Year Review Guidance, EPA Report 540R-98-050, EPA, Washington, DC, June 2001.
- Declaration for the Explanation of Significant Differences for Pinette's Salvage Yard Superfund Site, Washburn, Aroostook County, Maine, EPA Region I, June 20, 1996.
- Draft Final Feasibility Study Report for the Pinette's Salvage Yard Superfund Site, prepared for EPA Region I by Ebasco, Inc., March 1989b.
- EPA, 1996. Declaration for the Explanation of Significant Differences for Pinette's Salvage Yard Superfund Site, Washburn, Aroostook County, Maine, June 2, 1996.
- EPA, 2000a. Five-Year Review Report for the Pinette's Salvage Yard Superfund Site, Aroostook County, Maine, Prepared by EPA Region I, September 2000.
- EPA, 2002a. National Primary Drinking Water Regulations, List of Contaminants and their MCLs, EPA 816-F-02-013, EPA, Groundwater and Drinking Water, http://www.epa.gov/safewater/mcl.html, July 2002 (accessed 6/20/2005).
- EPA, 2002b. Draft Guidance For Evaluating the Vapor Intrusion to Indoor Air Pathway From Groundwater And Soils (Subsurface Vapor Intrusion Guidance), EPA, Office of Solid Waste, November 2002.
- EPA, 2005. Integrated Risk Information System (IRIS), EPA On-Line Toxicological
- Final Supplemental Remedial Investigation and Public Health Evaluation Report for the Pinette's Salvage Yard Superfund Site, prepared for EPA Region I by Ebasco, Inc., March 1989a.
- Internal EPA Memorandum entitled "Human Health Risk Screen for Groundwater Data Collected on June 1999 and September 1999 for the Pinette's Salvage Yard Superfund Site" from Ann Marie Burke, EPA Toxicologist, to Almerinda Silva, Remedial Project Manager (February 3, 2000).
- Internal EPA Memorandum from Richard Willey, EPA Hydrogeologist, to Almerinda Silva, Remedial Project Manager, re: Current Groundwater Concerns at the Pinette's Salvage Yard Superfund Site (March 13, 2000).

- Internal EPA Memorandum entitled "Review of Validated Data for Groundwater Sampling Conducted in June 1999 for Pinette's Salvage Yard Superfund Site" from Ann Marie Burke, EPA Toxicologist, to Almerinda Silva, Remedial Project Manager (October 6, 1999).
- Maine DEP, 2002. Declaration of Restrictive Covenant, State of Maine, County of Aroostook, Regarding the Pinette's Salvage Yard, Washburn, Maine, Between Roger Pinette (Owner) and Martha Kirkpatrick (Commissioner Maine DEP), August 30, 2002.
- MEGS, 2000. Maine Department of Human Services, Bureau of Health, Maximum Exposure Guidelines (MEG) for Drinking Water, January 20, 2000.
- Summary of Environmental Data and Evaluation Report, Pinette's Salvage Yard Superfund Site, prepared for EPA by Tetra Tech EC, Inc. (formerly Foster Wheeler Environmental Corporation), Boston, MA, June 1996.
- Tetra Tech EC, 2001. Groundwater Monitoring Program Evaluation, Pinette's Salvage Yard Superfund Site.
- Tetra Tech EC, 2002. Evaluation of Groundwater PCB Migration, Pinette's Salvage Yard Superfund Site.

ATTACHMENT 5
Site Inspection

Five-Year Review Site Inspection Checklist

(Working document for site inspection. Information may be completed by hand and attached to the Five-Year Review report as supporting documentation of site status. "N/A" refers to "not applicable.")

1. SITE INF	ORMATION
Site name: Pinette's Salvage Yard	Date of inspection: 8/3/05
Location and Region: Washburn, ME-Region 1	EPA ID: MED 980732291
Agency, office, or company leading the five-year review: U.S. EPA Region 1	Weather/temperature: Sunny & warm temps: mid 70s
Access controls	Monitored natural attenuation Groundwater containment Vertical barrier walls
Attachments: Inspection team roster attached	Site map attached (included as part of report)
II. INTERVIEWS (Check all that apply)
1. O&M site manager N/A Name Interviewed at site at office by phone Phone Problems, suggestions; Report attached	Title Date
2. O&M staff N/A Name	Title Date
Interviewed at site at office by phone Phone Problems, suggestions; Report attached	no.

3.	Local regulatory authorities and response response office, police department, office or recorder of deeds, or other city and county of the cou	f public health or environ	mental health, zo	emergency oning office,
	Agency N/A Contact			
	Name Problems; suggestions; Report attached	Title	Date	Phone no.
	Agency N/A Contact Name			
	Name Problems; suggestions; Report attached	Title	Date	Phone no.
	Agency N/A Contact			
	Name Problems; suggestions; Report attached	Title	Date	Phone no.
	Agency N/A Contact		#	
	Name Problems; suggestions; Report attached	Title	Date	Phone no.
4.	Other interviews (optional) Report attac	hed. Spoke with Re	oger Pinett	e who
indi	cated that little had changed	since completion	n of Remedi	al Action.
ir. P	inette has recently left his p	primary employmen	nt of truck	driver and
low in	ntends to perform miscellaneou	ıs tasks associat	ed with ve	hicle
cepair	r and selling of lawnmower par	rts (used). He o	ccasionall	y rents
space	on his property for local res	sidents to store	vehicles.	Also spoke
vith E	Rita Pinette who was more into	erested in who I	was and who	at I was
loing	at the site than discussing s	site specifics.		
			······································	

	O&M Documents			
	O&M manual	Readily available	Up to date	LUA
	As-built drawings	Readily available	Up to date	AUA
	Maintenance logs	Readily available	Up to date	. NIA
	Remarks			
2.	Site-Specific Health and Safety Plan	Readily available	Up to date	NIA
	Contingency plan/emergency response plan Remarks	Readily available	Up to date	MIA
3.	O&M and OSHA Training Records Remarks	Readily available	Up to date	WIA
	Permits and Service Agreements			
	Air discharge permit	Readily available	Up to date	MIA
	Effluent discharge	Readily available	Up to date	A/A
	Waste disposal, POTW	Readily available	Up to date	JA/A
	Other permits Remarks	Readily available	Up to date	AVA
-	Gas Generation Records Readily Remarks	available Up to	date N/A	
····	Remarks	available Up to Readily available	date ANA Up to date	WIA
•	Settlement Monument Records Remarks Groundwater Monitoring Records	Readily available	Up to date	W/A
	Settlement Monument Records Remarks	Readily available	Up to date	WA
	Settlement Monument Records Remarks Groundwater Monitoring Records Remarks Recept groundwater mon by EPA Regional lab and evalua	Readily available	Up to date	WA
	Settlement Monument Records Remarks Groundwater Monitoring Records Remarks Recept groundwater mon by EPA Regional lab and evalua Leachate Extraction Records Remarks	Readily available Readily available itoring sampling tion included in	Up to date Up to date results w	WA
,	Settlement Monument Records Remarks Groundwater Monitoring Records Remarks Recent groundwater mon by EPA Regional lab and evalua Lenchate Extraction Records Remarks Discharge Compliance Records	Readily available Readily available itoring sampling tion included in Readily available	Up to date Up to date results was 5-year re Up to date	WA
	Settlement Monument Records Remarks Groundwater Monitoring Records Remarks Recent groundwater mon by EPA Regional lab and evalua Lenchate Extraction Records Remarks Discharge Compliance Records Air Water (effluent)	Readily available Readily available itoring sampling tion included in	Up to date Up to date results w 5-year re Up to date	WA
•	Settlement Monument Records Remarks Groundwater Monitoring Records Remarks Recent groundwater mon by EPA Regional lab and evalua Lenchate Extraction Records Remarks Discharge Compliance Records Air	Readily available Readily available itoring sampling tion included in Readily available	Up to date Up to date results was 5-year re Up to date	W/A
	Settlement Monument Records Remarks Groundwater Monitoring Records Remarks Recent groundwater mon by EPA Regional lab and evalua Lenchate Extraction Records Remarks Discharge Compliance Records Air Water (effluent) Remarks	Readily available Readily available itoring sampling tion included in Readily available Readily available	Up to date results w 5-year re Up to date Up to date Up to date	N/A N/A ere do port.
	Settlement Monument Records Remarks Groundwater Monitoring Records Remarks Recent groundwater mon by EPA Regional lab and evalua Lenchate Extraction Records Remarks Discharge Compliance Records Air Water (effluent) Remarks	Readily available Readily available itoring sampling tion included in Readily available Readily available Readily available Readily available Readily available Readily available	Up to date Up to date Tesults w 5-year re Up to date Up to date Up to date Up to date	N/A N/A ere do port.

	IV. O&M COSTS N/A
1.	O&M Organization State in-house Contractor for State PRP in-house Contractor for PRP Federal Facility in-house Contractor for Federal Facility Other N/A
2.	O&M Cost Records N/A Readily available Up to date Funding mechanism/agreement in place Original O&M cost estimate Breakdown attached Total annual cost by year for review period if available
	From To Breakdown attached Date Date Total cost From Date Date Total cost From To Breakdown attached Date Date Total cost
3.	Unanticipated or Unusually High O&M Coats During Review Period Describe costs and reasons:
	V. ACCESS AND INSTITUTIONAL CONTROLS PApplicable N/A
A. Feu	
I. fence near (Fencing damaged Location shown on site map Gates secured N/A Remarks 1 breach in Site fence in NW corner. Major section of missing on North side where 2 access converge. No gate/fence garage area/access road. er Access Restrictions
1.	Signs and other security measures Location shown on site map N/A Remarks N/A

	nstitutional Controls (ICs)	. <u></u> -		
1.	Implementation and enforcement			
	Site conditions imply ICs not properly implemented	Yes	No	HVIA
	Site conditions imply ICs not being fully enforced	Yes	No	MA
	Type of monitoring (e.g., self-reporting, drive by) Frequency Responsible party/syrange			
	responsible partyragency			
	Contact	Dat	 c	Phone no.
	Reporting is up-to-date	Yes	No	MILA
	Reports are verified by the lead agency	Yes	•	MA
	Specific requirements in deed or decision documents have been met	Yes	No	N/A
	Violations have been reported	Yes	140	N/A
	Other problems or suggestions: Report attached		•	
	Deed restrictions are currently in place.			
	Adequacy ICs are adequate ICs are inadeq	•		
·				
). G	neral			
		ndalism e	vident	
	Vandalism/trespassing Location shown on site map Remarks Land use changes on site N/A Remarks None, Inspection reveals that site i	s simil		photos
D. Ge	Vandalism/trespassing Location shown on site map Remarks Land use changes on site N/A	s simil		photos
	Vandalism/trespassing Location shown on site map Remarks Land use changes on site N/A Remarks None. Inspection reveals that site i contained in 2000 five-year review report. Land use changes off site N/A	s simil		photos
	Vandalism/trespassing Location shown on site map Remarks Land use changes on site N/A Remarks None. Inspection reveals that site i contained in 2000 five-year review report. Land use changes off site N/A Remarks None VI. GENERAL SITE CONDITIONS	s simil		photos

B. (Other Site Conditions
	Remarks As previously noted, site appears to be very similar to historical photos. Owner has only recently become more active on
	the southeast portion of the property, performing miscellaneous vehicle repairs and selling of used lawnmower pieces and parts. Concrete pad on western portion of the site has numerous cracks and some frost heaving problems. In addition, some well-protection
	bollards have been frost damaged; however wells themselves appear
	VIL LANDFILL COVERS Applicable W/A ok.
A. I	andfili Surface
1.	Settlement (Low spots) Areal extent Remarks Location shown on site map Settlement not evident Depth Depth
2.	Cracks Location shown on site map Cracking not evident Lengths Widths Depths Remarks
3.	Erosion Location shown on site map Erosion not evident Areal extent Depth Remarks
4.	Holes Location shown on site map Holes not evident Areal extent Depth Remarks
5.	Vegetative Cover Grass Cover properly established No signs of stress Trees/Shrubs (indicate size and locations on a diagram) Remarks
6.	Alternative Cover (armored rock, concrete, etc.) N/A Remarks
 7.	Bulges Location shown on site map Bulges not evident Areal extent Height Remarks
/	
r	<u> </u>

			
8.	Wet Areas/Water Dam	age Wet areas/water dar	mage not evident
	Wet areas	Location shown on	
	Ponding	Location shown on	site map Areal extent
	Seeps	Location shown on	
	Soft subgrade	Location shown on	
	Remarks		
9.	Stope Instability	Slides Location shown on	site map No evidence of slope instability
	Areal extent		, , , , , , , , , , , , , , , , , , , ,
	Remarks		
B. I	Benches Appl	licable N/A	
	(Horizontally constructed	mounds of earth placed across a	steep landfill side slope to interrupt the slope
		velocity of surface runoff and in	tercept and convey the runoff to a lined
	channel.)		
1.	Flows Bypass Bench	Location shown on a	site map N/A or okay
		/	
2.	Bench Breached	Location shown on site map	N/A or okay
	Remarks		
3.	Bench Overtopped	Location shown on site map N/A or okay	
	Remarks	200,	the tree
C. I	etdown Channels Appli	icable / N/A	
· .			s, or gabions that descend down the steep
	side slope of the cover and	i will allow the runoff water colle	cted by the benches to move off of the
	landfill cover without cres	ting crosion gullies.)	
1.	Settlement	Location shown on site map	No evidence of settlement
4.	Areal extent	Depth	140 saugues of Settlewells
	Remarks		
		· · · · · · · · · · · · · · · · · · ·	
<u> </u>	Material Decredation	Lagation shows an aits — -	No. of Association
2.	Material Begradation Material type	Location shown on site map Areal extent	No evidence of degradation
	Remarks		
	Kung L		
 3.	Erosion	Logation shows an aite	No address 6
J.	Areal extent	Location shown on site map	No evidence of erosion
_/	Remarks	Depth	
	, commen		
-			

4.	Undercutting Location shown on site map No evidence of undercutting Areal extent Depth Remarks
5.	Obstructions Type No obstructions Location shown on site map Areal extent Size Remarks
6.	Excessive Vegetative Growth No evidence of excessive growth Vegetation in channels does not obstruct flow Location shown on site map Remarks Areal extent
D. Ca	over Penetrations Applicable N/A
l.	Gas Vents Active Passive Properly secured/locked Functioning Routipely sampled Good condition Evidence of leakage at penetration Needs Maintenance N/A Remarks
2.	Gas Monitoring Probes Properly secured/locked Functioning Routinely sampled Good condition Evidence of leakage at penetration Needs Maintenance N/A Remarks
3.	Monitoring Wells (within surface area of landfill) Properly secured/looked Functioning Routinely sampled Good condition Evidence of leakage at penetration Needs Maintenance N/A Remarks
4.	Leachate Extraction Wells Properly secured/locked Functioning Routinely sampled Good condition Eyidence of leakage at penetration Needs Maintenance N/A Remarks
5.	Settlement Monuments Located Routinely surveyed N/A Remarks

E.	Gas Collection and Treatment	Applica	ble	HVA		
1.	Gas Treatment Facilities Flaring Good condition Remarks	Thermal destruct Needs Maintenar	nce	Collection for reuse	:	
2.	Gas Collection Wells, Man Good condition Remarks	Needs Maintenan	ice			
3.	Gas Monitoring Facilities (Good condition Remarks	Needs Maintenan	ce	N/A	ngs)	
F.	Cover Drainage Layer	Applicab	le	VN/A		
1.	Outlet Pipes Inspected Remarks	Function	ing	N/A		
2.	Outlet Rock Inspected Remarks	Function	ing	N/A		
G.	Detention/Sedimentation Fonds	Applicab	le	VIVIA		
1.	Siltation Areal extent Siltation not evident Remarks				N/A	
2.	Erosion Areal exten Erosion not evident Remarks					
3.	Outlet Works Remarks	Functioning N	∛A			
4.	Dam j Remarks		VA			

H.	Retaining Walls	Applicable W/A	
I.	Deformations Horizontal displacement Rotational displacement Remarks	-	ement
2.	Degradation Remarks	Location shown on site map	Degradation not evident
1.	Perimeter Ditches/Off-Site Dis	charge Applicable	XIA
l.	Areal extent		not evident
2.	Vegetative Growth Vegetation does not imp Areal extent Remarks	Type	N/A
3.	Erosion Areal extent Remarks		Erosion not evident
4.	Discharge Structure Remarks	Functioning N/A	
	VIII. VERT	ICAL BARRIER WALLS	Applicable M/A
I.	Settlement Areal extent Remarks	Location shown on site map Depth	Settlement not evident
2.	Performance Monitoring Performance not monito Frequency Head differential Remarks	Evid	lence of breaching

	IX. GROUNDWATER/SURFACE WATER REMEDIES Applicable N/A
A.	Groundwater Extraction Wells, Pumps, and Pipelines Applicable N/A
.1	Pumps, Wellhead Plumbing, and Electrical Good condition All required wells properly operating Needs Maintenance M/A Remarks All monitoring wells appear to be in good condition, and with the exception of SMW 10 all are locked at the protective casing. SMW 10 is locked at the PVC riser.
2.	Extraction System Pipelines, Valves, Vulve Boxes, and Other Appurtenances Good condition Needs Maintenance Remarks N/A
3.	Spare Parts and Equipment Readily available Good condition Requires upgrade Needs to be provided Remarks N/A
В.	Surface Water Collection Structures, Pumps, and Pipelines Applicable VN/A
t.	Collection Structures, Pumps, and Electrical Good condition Needs Maintenance Remarks
2.	Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances Good condition Needs Maintenance Remarks
3.	Spare Parts and Equipment Readily available Good condition Requires upgrade Needs to be provided Remarks

C.	Treatment System	Applicable	VN/A		
1.	Treatment Train (Chec Metals removal Air stripping Filters	Oil/v Carb	vater separation on adsorbers		nediation
	Filters Additive (e.g., chelatic Others	on agent, flocculer	t)		
	Good condition Sampling ports proper Sampling/maintenance Equipment properly id Quantity of groundwat Quantity of surface wa Remarks	ly marked and fun- log displayed and entified er treated annually ter treated annuall	up to date /	· · · · · · · · · · · · · · · · · · ·	
2.	Electrical Enclosures ar N/A Good Remarks	d Panels (properi	y rated and functions Needs Maintena	al) nce	
3.		l condition	Proper secondary		Needs Maintenance
4.	Discharge Structure and MA Good Remarks	condition	Needs Maintenar	ace	
5.	Treatment Building(s) MA Good Chemicals and equipments		• •	Needs r	•
6.	Monitoring Wells (pump Properly secured/locked All required wells locat Remarks	Functioning	edy) Routinely sample Maintenance		ondition M/A
D. N	Monitoring Data				
l.	Monitoring Data Is routinely su	omitted on time	vis of acceptal	ole quality	
2.	Monitoring data suggests: Groundwater plume is e	ffectively contains	ed Contaminant	concentrations an	e declining

D.	Monitored Natural Attenuation
1.	Monitoring Wells (natural attenuation remedy) Properly secured/locked Functioning Routinely sampled Good condition All required wells located Needs Maintenance N/A Remarks SMW 10 is locked at PVC riser, all others locked at protective steel casing.
_	X. OTHER REMEDIES
	If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil
_	XI. OVERALL OBSERVATIONS
A.	Implementation of the Remedy
	Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminar plume, minimize infiltration and gas emission, etc.). See text of 5-year review report.
-	Adequacy of O&M
	Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. Remaining monitoring wells and fence around well cluster #5 appear to be in good condition. As previously noted, both in this report and the previous 5-year review, sections of the original site fence has been removed. Absence of this fencing does not appear to be adversely impacting the site.

c.	Early Indicators of Potential Remedy Problems
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future. None
D.	Opportunities for Optimization
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. None

ATTACHMENT 6
Photographic Log

Tetra Tech EC, Inc. Pinette's Salvage Yard Superfund Site

EPA Contract No. 68-W6-0042 Work Assignment No. 148-FRFE-0122

PHOTOGRAPHIC RECORD



Photographer:	R. Leighton
Date:	8/3/05
Time:	Mid-day
Frame No.:	1
Site Location:	Pinette's
Direction:	Northwest
Comments:	Eastern entrance to the

Tetra Tech EC, Inc.

Pinette's Salvage Yard Superfund Site EPA Contract No. 68-W6-0042 Work Assignment No. 148-FRFE-0122

PHOTOGRAPHIC RECORD



Photographer:	R. Leighton
Date:	8/3/05
Time:	Mid-day
Frame No.:	2
Site Location:	Pinette's

Direction: Northwest

Comments: Well cluster #7 with

well cluster #5 in the background.

Tetra Tech EC, Inc. Pinette's Salvage Yard Superfund Site EPA Contract No. 68-W6-0042 Work Assignment No. 148-FRFE-0122 PHOTOGRAPHIC RECORD



Photographer:	R. Leighton
Date:	8/3/05
Time:	Mid-day
Frame No.:	3
Site Location:	Pinette's
Direction:	East
Comments:	View of Site from the
western access to	o the Site. Home of Rita
Pinette in backgr	round.

Tetra Tech EC, Inc.

Pinette's Salvage Yard Superfund Site EPA Contract No. 68-W6-0042 Work Assignment No. 148-FRFE-0122

PHOTOGRAPHIC RECORD



Photographer:	R. Leighton
Date:	8/3/05
Гіте:	Mid-day
Frame No.:	4
Site Location:	Pinette's
Direction:	West-Southwest
Comments:	View of the southwestern

Tetra Tech EC, Inc. Pinette's Salvage Yard Superfund Site EPA Contract No. 68-W6-0042 Work Assignment No. 148-FRFE-0122 PHOTOGRAPHIC RECORD



Photographer:	R. Leighton
Date:	8/3/05
Time:	Mid-day
Frame No.:	5
Site Location:	Pinette's
Direction:	Northwest
Comments:	Breech in perimeter

Tetra Tech EC, Inc. Pinette's Salvage Yard Superfund Site EPA Contract No. 68-W6-0042 Work Assignment No. 148-FRFE-0122

PHOTOGRAPHIC RECORD



Photographer:	R. Leighton
Date:	8/3/05
Time:	Mid-day
Frame No.:	6
Site Location:	Pinette's
Direction:	North
Comments:	Well cluster #1

Tetra Tech EC, Inc.

Pinette's Salvage Yard Superfund Site EPA Contract No. 68-W6-0042 Work Assignment No. 148-FRFE-0122

PHOTOGRAPHIC RECORD



Photographer:	R. Leighton
Date:	8/3/05
Гіте:	Mid-day
Frame No.:	7
Site Location:	Pinette's
Direction:	East

Tetra Tech EC, Inc. Pinette's Salvage Yard Superfund Site EPA Contract No. 68-W6-0042 Work Assignment No. 148-FRFE-0122 PHOTOGRAPHIC RECORD



Photographer:	R. Leighton
Date:	8/3/05
Time:	Mid-day
Frame No.:	8
Site Location:	Pinette's
Direction:	Southeast
Comments:	Site immediately south
of well cluster #:	5